UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,557	11/13/2001	Steven M. Lehmann	353.015	8662

7590 12/30/2003

Andrew S. McConnell
Boyle, Fredrickson, Newholm, Stein & Gratz, S.C.
250 E. Wisconsin Avenue, Suite 1030
Milwaukee, WI 53202

EXAMINER	
LUONG, VINH	

ART UNIT	PAPER NUMBER
3682	

DATE MAILED: 12/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/008,557	LEHMANN, STEVEN M.	
	Examiner	Art Unit	
	Vinh T Luong	3682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) *17-24* is/are withdrawn from consideration.

5)☒ Claim(s) *8-16* is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Vinh T. Luong
Primary Examiner

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: *Exhibit.*

1. The Amendment filed on August 18, 2003 (Paper No. 9) has been entered. However, note that applicant's wrongly identified the Serial No. of the instant application as 10/008,577 instead of 10/008,557 on page 1 of Paper No. 9. Applicant is respectfully urged to correctly identify the Serial No. of the application in every paper submitted to the Office in order to expedite its processing. MPEP 502.

2. Claims 17-24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 7.

3. The replacement sheet of drawings (Figs. 3-5) was received on August 18, 2003. These drawings are accepted by the Examiner.

4. The proposed drawing correction paper (annotated sheet showing changes) filed August 18, 2003 is objected to under 37 CFR 1.52 since applicant's new referential numeral 61 and statement "Reference numeral 61 added" are not in permanent dark ink or its equivalent. In fact, they are written by pencil.

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Taniwaki'309 (U.S. Patent No. 3,944,309 cited by applicant).

Regarding claim 1, Taniwaki'309 teaches a mobile storage system including one or more movable storage units 1A-1E and a drive arrangement 16, 18, 20, etc. associated with each storage unit, wherein the drive arrangement is operable to move the storage unit 1A-1E in response to application of an actuating force to an actuator 14, the improvement comprising a

torque limiting mechanism interposed between the actuator 14 and the drive arrangement 16, 18, 20, etc., wherein the torque limiting mechanism inherently transfers the actuating force from the actuator 14 to the drive arrangement 16, 18, 20, etc. when the actuating force is below a predetermined threshold and wherein the torque limiting mechanism inherently prevents transfer of the actuating force from the actuator 14 to the drive arrangement 16, 18, 20, etc. when the actuating force is above the predetermined threshold.

Regarding claim 2, the actuator 14 includes a manually operable handle 14 interconnected with the drive arrangement by means of an input shaft (unnumbered. See Exhibit).

Regarding claim 3, the drive arrangement further includes a flexible drive element 20 (Fig. 3) engaged with an input drive member 16b, 24b, etc. (Fig. 6) wherein the input shaft (Exhibit) is mounted to the input drive member 16b, 24b, etc. such that rotation of the input shaft (Exhibit) by manual operation of the handle 14 results in rotation of the input drive member 16b, 24b, etc., and thereby rotation of the flexible drive element 20.

Regarding claim 4, the torque limiting mechanism includes an input member 16b, 24b, etc. interconnected with the input shaft (Exhibit), and a force-transferring arrangement interposed between the handle 14 and the input member 16b, 24b, etc. for inherently transferring the actuating force from the handle 14 to the input member 16b, 24b, etc. when the actuating force is below the predetermined threshold, and for inherently preventing transfer of the actuating force from the handle 14 to the input member 16b, 24b, etc. when the actuating force is above the predetermined threshold.

Regarding claim 5, the force-transferring arrangement comprises one or more selective engagement members 26, 26a (Figs. 4 and 5), 28a (Figs. 6 and 7), 96 (Fig. 11), 116 (Figs. 14 and 15), etc. engaged with the handle 14 and with the input member 16b, 24b, etc.

Regarding claim 6, see a biasing element 34 for urging each engagement member 28a (Figs. 6 and 7) toward an engaged position in which each engagement member 28a engages the handle 14 with the input member 16b, 24b, etc., wherein application of a force to the handle 14 above the predetermined threshold is operable to move each engagement member 28a away from its engaged position (Fig. 7) against the force of the biasing element 34.

Regarding claim 7, see an adjustment arrangement 28b, 36, etc. (Figs. 6 and 7) associated with the biasing element 34 for varying the force applied to the engagement member 28a so as to adjust the predetermined threshold of force which moves the engagement member 28a away from the engaged position (Fig. 7).

7. Claims 8-16 are allowed.

8. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

9. Applicant's arguments filed August 18, 2003 have been fully considered but they are not persuasive.

Applicant contends, *inter alia*, that: "the locking device of Taniwaki does not prevent application of an actuating force to the drive arrangement above a predetermined threshold and transfer an actuating force to the drive arrangement below the predetermined threshold, as amended claim 1 requires. Instead, the locking device of the Taniwaki reference locks the

handwheel 14 by engagement of engaging rod 28a with the toothed wheel. Rotation of operating grip 36 releases and locks the handwheel 14. The Taniwaki reference discloses a locking mechanism for selectively preventing movement or a rack, but does not show or suggest a torque limiting mechanism as claimed, for transferring an actuating force below a predetermined threshold to the drive arrangement and for preventing the transfer of an actuating force above a predetermined threshold to the drive arrangement."

At the outset, the examiner is mindful that the functional statement in the claims of this application merely expresses an inherent result of the structures already recited in the body of the claims, *a fortiori*, it adds nothing to claim's patentability. *Texas Instruments, Inc. v. International Trade Commission*, 26 USPQ2d 1018 (CAFC 1993). Further, anticipation can occur when a claimed limitation is "inherent" or otherwise implicit in the relevance reference. *Standard Haven Products, Inc. v. Gencor Industries, Inc.*, 21 USPQ2d 132, 1328 (CAFC 1991). It is well settled that an anticipatory reference does not need to provide explanation about what artisan would know as evidenced by standard textbook. *In re Opprecht*, 12 USPQ2d 1235 (CAFC 1989).

In the instant case, the examiner respectfully submits that Taniwaki'309 inherently teaches the prevention of an actuating force to the drive arrangement above a predetermined threshold and the transferring of an actuating force to the drive arrangement below the predetermined threshold. The instant inherence is flown naturally from Taniwaki'309's teaching of substantially similar type of applicant's detent mechanism. In fact, Taniwaki'309's spring biased rod 28a is fully equivalent to applicant's spring biased engagement member 26 because it

solves the same problem substantially in the same way. *In re Best*, 195 USPQ 430, 433 (CCPA 1977) and MPEP 2112.

Indeed, line 5 *et seq.*, column 4 of Taniwaki'309 explicitly explains that "When one grips the operating knob 36 and rotates it in the counterclockwise direction to release the engaging rod 28a from the toothed wheel 24b, the locking device is released so that he may rotate the handwheel 14 . . . To lock the handwheel 14 and hence the driving wheel 10, one rotates the operating grip 36 in the clockwise direction to engage the engaging rod 28a with the toothed wheel 26b as shown in Fig. 7." On the other hand, Merriam *Webster's Collegiate Dictionary* defines:

> "*Torque* 1:a force that produces or tend to produce rotation or torsion <an automobile engine delivers ~ to the drive shaft>; also: a measure of the effectiveness of such a force that consists of the product of the force and the perpendicular distance from the line of action of the force to the axis of rotation; 2: *a turning or a twisting force.*"

Applying the above dictionary definition of "torque" to the disclosure of Taniwaki'309, one having ordinary skill in the art knows or has the reason to know that Taniwaki'309's device operates in the following manner:

(a) If the actuating/turning force or torque is below the predetermined threshold, Taniwaki'309's locking device or rod 28a is disengaged from the wheel 26b, one can rotate the handwheel 14, *i.e.*, one can transfer the actuating force from the actuator to the drive arrangement; and

(b) If the actuating/turning force or torque is above a predetermined threshold,

Taniwaki'309's locking device 28a is engaged with the wheel 26b, one cannot rotate the handwheel 14, *i.e.*, one prevents the transfer of the actuating force from the actuator to the drive arrangement.

Simply put, Taniwaki'309 inherently teaches the torque limiting mechanism that transfers or prevents the actuating force from the actuator 14 to the drive arrangement 16, 18, 20, etc. as claimed because Taniwaki'309's locking device 28a is engaged or disengaged with Taniwaki'309's wheel 26b in the same manner as applicant's locking device 26 that is engaged or disengaged with applicant's wheel 24 (Figs. 4 and 5).

It is well settled that an anticipatory reference needs not duplicate word for word what is in the claims. Anticipation can occur when a claimed limitation is "inherent" or otherwise implicit in the relevance reference. *Standard Haven Products, Inc. v. Gencor Industries, Inc., supra.* Further, one having ordinary skill in the art would know that applicant's device operates in the same manner as Taniwaki'309's device. *In re Opprecht, supra.* In the case at hand, Taniwaki'309 reference transparently satisfies the test set forth by the Court.

For the reasons stated above, the rejections of claims 1-7 are maintained.

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T Luong whose telephone number is 703-308-3221. The examiner can normally be reached on Tuesday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bucci can be reached on 703-308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Luong

December 23, 2003

Vinh T. Luong
Primary Examiner

EXHIBIT

FIG. 4

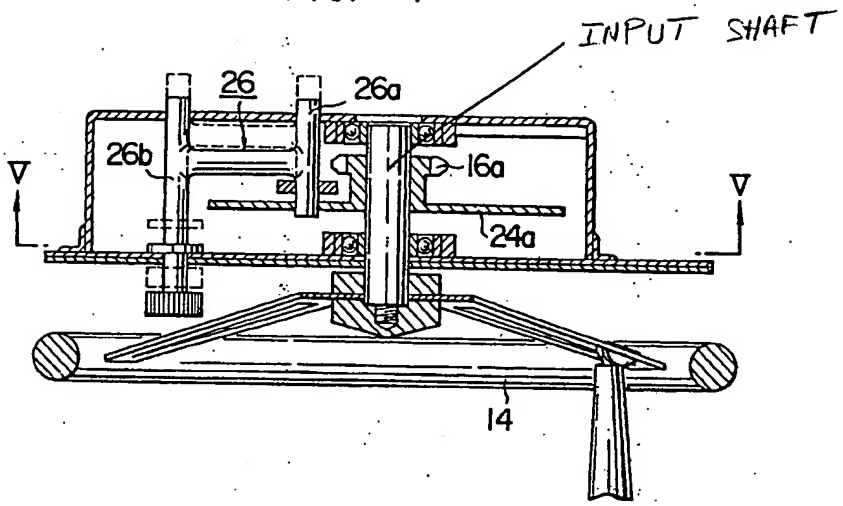

FIG. 5